NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Warm Up

**Find the vertex and sketch the graph. SHOW WORK! Check your answers with the calculator.**

1) y = x2 + 6x +2 2) y = -2(x – 2)(x + 2) 3) y = 3(x – 4)2 – 3

**Use the calculator to graph the following. Find the vertex.**

4) y = 5(x + 8)2 + 10 5) y = -2(x – 6)(x + 2)

**Solve the following by factoring. Use your calculator to check your work.**

6) 2x2 – 11x = 21 7) 3x2 – x – 36 = 3x + 2x2 – 4 8) 2x2 + 10x = 0

**Solve the following by taking the square root of both sides. Use your calculator to check your work.**

9) (x – 2)2 + 10 = 110 10) x2 – 15 = 35 11) 4(x + 3)2 – 3 = 97